OCEAN GALES AND STORMS, NOVEMBER, 1927

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN			° ′	° ′				*Inches*					
Thuringia, Ger. S. S.	Cobh	Boston	49 12 N.	30 07 W.	Nov. 1	6p., 1	Nov. 2	28.67	SW	SW	WNW.	SW., 11	SW-W-WNW.
Goathland, Br. S. S.	St. Vincent	Gulfport	25 00 N.	60 00 W.	2	6p., 2	4	29.60	ENE.	ENE., 7	WSW.	SW., 10	ENE-S-SW.
Texas, Dan. S. S.	Newcastle	Boston	58 15 N.	19 00 W.	2	3a., 2	3	28.57	SE.	SE., 8	W.	W., 12	SE-W.
Persephone, Danzig S. S.	Hamburg	New York	39 44 N.	67 47 W.	3	1p., 4	4	29.28	ESE.	S., 8	WSW.	SSE., 12	ESE-S-WSW.
AmericanPress, Am. S. S.	New Orleans	Glasgow	51 30 N.	22 00 W.	5	4a., 5	6		NW.	NW., 5	N.	NW., 10	
George Peirce, Am. S. S.	Norfolk	Bremen	41 45 N.	54 45 W.	4	3a., 6	6	29.62	SSE.	SSE., 9	S.	SSE., 9	ESE-S.
Cherca, Ital. S. S.	New York	Genoa	36 06 N.	20 32 W.	7	7p., 7	8	29.10	NNE.	NNE., 6	NW.	NNW., 9	NNE-N-NW.
City of Alton, Am. S. S.	do	Rotterdam	48 35 N.	25 00 W.	7	4a., 7	9	29.86	NE.	NE., 7	NE.	NE., 10	Steady.
Prusa, Am. S. S.	Algeciras, Spain.	New Orleans	34 24 N.	16 29 W.	7	4a., 8	8	29.17	S.	W.	NW.	W., 10	W-NW.
Texas, Dan. S. S.	Newcastle	Boston	45 45 N.	56 25 W.	10	10a., 10	10	29.33	ESE.	S., 8	WNW.	NW., 12	S-NW.
Berlin, Ger. S. S.	New York	Cherbourg	45 42 N.	39 52 W.	16	4a., 16	16	30.08	WNW.	W., 9	NW.	NNW., 11	NW-W-NNW.
Lorain, Am. S. S.	Hamburg	Boston	43 00 N.	23 00 W.	16	6p., 16	18	29.94	W.	W., 10	NW.	W., 10	SW-W.
Elzasier, Belg. S. S.	Antwerp	New York	50 50 N.	18 02 W.	17	4a., 17	19	29.37	S.	S., 7	WNW.	NNW., 11	S-NW.
Athelmere, Br. S. S.	New York	Cuba	34 00 N.	75 07 W.	17	3a., 18	18	29.73	S.	S., 10	W.	SSW., 12	S-SSW.
Australien, Dan. M. S.	Canal Zone	Hamburg	27 40 N.	50 45 W.	18	6a., 19	19	29.75	E.	E., 7	SSE.	ESE., 9	E-SE.
Manuel Calvo, Span. S. S.	Cadiz	Las Palmas	34 28 N.	8 35 W.	19	4a., 19	20	29.45	SW.	SW., 9	NW.	SW., 9	
Mayebashi Maru, Jap. S. S.	Canal Zone	New York	17 37 N.	75 02 W.	21	4a., 21	23	29.76	NNE.	NW., 6	E.	NNE., 8	Steady.
Demarara, Br. S. S.	Buenos Aires	Liverpool	33 20 N.	12 56 W.	21	2p., 21	21	29.59	W.	NW., 9	NW.	NW., 9	Do.
Arminco, Belg. S. S.	Newcastle	Marcus Hook	48 10 N.	31 18 W.	22	11p., 22	23	29.62	SSW.	NW., 6	NW.	SW., 11	
Argosy, Am. S. S.	Gothenburg	Portland, Me.	58 30 N.	4 45 W.	23	8p., 23	30	29.06	SSE.	SSE.	WSW.	SW., 10	S-SW.
Ophis, Am. S. S.	Galveston	Liverpool	45 00 N.	45 30 W.	23	4p., 24	26	29.41	SW.	WSW., 8	W.	WSW., 11	SSW-NW.
Stockholm, Swed. S. S.	Gothenburg	New York	51 24 N.	42 36 W.	25	3a., 25	25	28.62	N.	NW., 3	NNW.	NW., 11	SW-N.
Bloomfield, Br. S. S.	Baytown	Marseille	38 10 N.	0 02 W.	26	4p., 26	27	29.92	N.	N., 8	NNE.	N., 9	Steady.
München, Ger. S. S.	Bremerhaven	New York	49 51 N.	25 27 W.	27	—, 27	28	29.55	S.	WSW., 10	NW.	—, 10	SE-S-NW
Kerhonkson, Am. S. S.	Liverpool	Baltimore	47 42 N.	43 09 W.	30	3p., 30	Dec. 1	29.76	SSE.	SSW., 9	W.	SSW., 9	SSW-W.
NORTH PACIFIC OCEAN													
Yokohama Maru, Jap. S. S.	Yokohama	Victoria	50 05 N.	168 35 W.	Oct. 30	1a., 31	Nov. 1	28.25	E.	S., —	SW.	S., 12	S-SSW.
Yeifuku Maru, Jap. S. S.	Nagasaki	Seattle	45 21 N.	163 02 E.	Nov 6	6p., 7	8	28.40	ESE.	SW., 10	W.	SW., 11	Steady.
Kinkasan Maru, Jap. S. S.	Everett	Yokohama	44 57 N.	154 42 E.	6	8a., 6	8	28.45	E.	NE., 11	N.	NE., 11	E-NE-N.
West Cajoot, Am. S. S.	Yokohama	San Francisco	41 34 N.	154 00 E.	6	2a., 6	8	28.83	ESE.	SW., 10	W.	SW., 11	ESE-S-W.
Dewey, Am. S. S.	Otaru	do	44 45 N.	166 35 E.	6	10p., 6	9	28.48	ENE.	N., 12	W.	N., 12	ENE-N.
Wairuna, Br. S. S.	Suva, Fiji	Vancouver	37 40 N.	135 33 W.	7	3a., 8	9	29.55	NE.	N., 9	N.	N., 9	NE-N.
Montague, Am. S. S.	Manila	San Francisco	33 00 N.	141 12 E.	8	8p., 8	9	29.52	SE.	NE., 10	N.	N., 11	SE-NE.
Illingworth, Br. S. S.	Panama	Yokohama	36 20 N.	164 50 E.	9	5a., 10	10	28.76	SSE.	SW., 10	NNW.	N., 12	SW-W-N.
Yeifuku Maru, Jap. S. S.	Nagasaki	Seattle	49 00 N.	179 48 W.	10	Noon, 10	11	28.23	ENE.	ESE., 2	S.	SSW., 11	E-ESE-SW.
Arizona Maru, Jap. S. S.	Yokohama	Victoria	48 20 N.	120 40 W.	12	2a., 12	12	29.70		E., 8		E., 9	1 point.
Emp. of Russia, Br. S. S.	do	do	49 15 N.	127 30 W.	11	Noon, 13	13	29.36	NNE.	ESE., 6	ESE.	NNE., 9	NNE-ESE
West Sequana, Am. S. S.	Hong Kong	San Francisco	38 50 N.	162 10 E.	13	6p., 13	14	29.54	SSE.	SSE., —	WNW.	S., 9	
Koyo Maru, Jap. S. S.	Yokohama	Seattle	49 37 N.	131 00 W.	14	Noon, 15	16	29.81	ENE.	SE., —	SSW.	SE., 9	ENE-SE-SSW
Zurichmoor, Br. S. S.	Wei-hai-wei	Vancouver	48 40 N.	133 56 W.	15	Noon, 15	15	29.62	ENE.	SE., 9	SE.	SE., 9	SE-SSE.
Sidney M. Hauptman, Am. S. S.	New York	San Pedro	14 58 N.	93 55 W.	17	4p., 17	18	29.74	NW.	NW., 6	NE.	NE., 10	NW-NE.
West Sequana, Am. S. S.	Hong Kong	San Francisco	39 10 N.	176 00 W.	17	Noon, 17	18	29.80	SE.	SE., 8	SE.	SE., 9	Steady.
Aorangi, Br. S. S.	Victoria	Honolulu	43 25 N.	134 41 W.	18	2p., 18	18	29.06	SE.	WNW., 12	NW.	WNW., 12	SE-WSW.
Nora, Am. S. S.	San Pedro	Balboa	15 12 N.	95 06 W.	19	4p., 19	19	29.91	ENE.	N., 9	NNW.	N., 9	NE-NNE-N.
Savoia, Ital. S. S.	Balboa	Portland	47 06 N.	124 30 W.	18	11p., 18	19	29.40	ESE.	ESE., 9	SW.	ESE., 11	ESE-SE.
Montague, Am. S. S.	Manila	San Francisco	39 42 N.	178 55 W.	18	2 a., 18	19	29.93	SE.	SE., 9	S.	SE., 9	SE-S.
West O'Rowa, Am. S. S.	Orient	Portland	49 30 N.	137 00 W.	20	—, 21	22	29.52	WSW.	SSW., 9	WNW.	SSW., 10	SSW-WNW.
Kaga Maru, Jap. S. S.	Yokohama	Victoria	50 10 N.	173 50 W.	23	6a., 25	26	28.60	NE.	E., 2	S.	E., 11	E-SSE-SSW.
Pres. Pierce, Am. S. S.	San Francisco	Yokohama	33 10 N.	166 27 E.	24	Mdt. 24	26	29.35	W.	W., 9	NNW.	NNW., 10	W-WNW.
Protesilaus, Br. S. S.	Yokohama	Victoria	47 24 N.	174 52 E.	25	2a., 25	28	28.57	SSW.	SSE., 6	SSW.	—, 9	ESE-SW.
Paris Maru, Jap. S. S.	do	Vancouver	45 11 N.	157 12 W.	29	8p., 29	30	28.42	S.	S., 8	SW.	S., 9	S-SW.

NORTH PACIFIC OCEAN

By WILLIS E. HURD

While the average pressure over Aleutian and Alaskan waters was much above the normal, yet there were three periods of intense development of the Aleutian LOW during November, 1927. One occurred on the 1st and 2d of the month in the Gulf of Alaska. The second took place over the central Aleutian Islands on the 10th and 11th, and the third covered much of the entire region from the 20th to the end of the month. Vessel reports show that winds as high as force 11 occurred in connection with these phases of the LOW on the 10th, 11th, and 25th in the neighborhood of 50° N., between the one hundred and eightieth meridian and 170° W. Very low pressures accompanied the developments, especially on the 1st, when a reading of 28.44 inches was made at Kodiak, and on the 11th, when one of 28.23 inches was reported by the Japanese steamer *Yeifuku Maru*, in 49° N., 179° 48′ W. In middle latitudes pressures were practically normal, and the great North Pacific anticyclone showed good development over two-thirds of the month and was never wholly dispossessed.

The following table gives pressure data for several island and coast stations in west longitudes:

TABLE 1.—*Averages, departures, and extremes of atmospheric pressure at sea level at indicated hours, North Pacific Ocean, November, 1927*

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	*Inch*	*Inches*		*Inches*	
Dutch Harbor [1 2]	29.83	+0.24	30.42	5th	29.04	1st.
St. Paul [1 3]	29.95	+0.33	30.44	4th	29.38	12th.
Kodiak [1 3]	29.79	+0.25	30.42	11th	28.44	1st.
Midway Island [1]	29.98	−0.09	30.22	3d	29.78	25th.
Honolulu [4]	29.99	−0.04	30.11	11th	29.84	3d.
Juneau [4]	29.86	+0.10	30.49	11th	28.93	26th.
Tatoosh Island [4 5]	29.91	−0.06	30.35	2d	29.21	19th.
San Francisco [4 5]	30.10	0.00	30.38	16th	29.76	9th.
San Diego [4 5]	30.02	+0.02	30.17	2d	29.75	1st.

[1] P. m. observations only.
[2] For 29 days.
[3] For 28 days.
[4] A. m. and p. m. observations.
[5] Corrected to 24-hour mean.

Three important cyclonic areas developed in the region usually occupied by the NE. Pacific HIGH. The first appeared northeast of the Hawaiian Islands on the 6th.

It intensified on the 7th and 8th, giving rough weather to steamers midway on the Honolulu-California routes, then with less energy entered the coast south of Oregon on the 9th. The second developed near 40° N., 145° W., on the 10th and entered the Washington coast on the 14th, where it quickly died out. It caused high gales, especially in coastal waters, attaining storm force at times on the 12th. The third appeared near 43° N., 138° W., on the 18th and, quickly spreading eastward, caused severe local gales which attained storm to hurricane force in places at sea and off the coast between North Head and Victoria.

Tatoosh Island, Wash., reported winds of 70 or more miles an hour as follows: 73 E. on the 12th, 70 E. on the 15th, 75 S. on the 19th, and 79 S. on the 22d.

In east longitudes storm to hurricane winds occured over a great extent of sea between Japan and 170° E. on the 6th, 7th, and 8th, in connection with an intense cyclone that had its origin in China as a mere depression on the 3d. Hurricane velocities also occurred on the 10th in the vicinity of 35° N., 165° E.

There were no cyclones in Mexican coast waters this month. Strong to severe northers, however, blew over the Gulf of Tehuantepec on several days, attaining the force of a whole gale on the 17th.

The prevailing wind direction at Honolulu was from the east, with konas occurring on four days. The maximum velocity was at the rate of 32 miles an hour from the northeast on the 17th.

Fog was more prevalent than usual for the month in middle latitudes from the one hundred and eightieth meridian to the American coast, and on several days during the last decade extended as a vast though broken sheet between these boundaries, especially along the fortieth to forty-fifth parallels. There was more fog than usual over the eastern half of the Honolulu-California routes, and also, for this time of year, to the south and southwest of the Aleutian Islands.

NOTE.—In the review of North Pacific weather for August, 1927, it was noted that a moderately intense cyclone occurred off the Mexican west coast from the 7th to the 10th. A recently received report from Capt. G. S. Dexter, of the American steamer *Chilsco*, shows that the storm was much more violent than had previously been suspected, as this vessel encountered hurricane winds, first from the north, then from the southwest, on the 9th, while in and near 17° 47′ N., 106° 21′ W. Captain Dexter observed that "it gave much less warning than the hurricanes do in the Atlantic and Caribbean Sea."

CYCLONE OF THE ARABIAN SEA

Mr. B. C. Jackson, chief officer and observer of the British S. S. *Khosrou*, Capt. F. Beattie, Calcutta to Karachi, reports that on November 12, 1927, the *Khosrou* was involved in a tropical cyclone of some intensity, the highest wind force experienced being 10, from the NE. by N., in 19° 30′ N., 70° 15′ E. According to official radio reports received from Colombo and Bombay by this vessel, the storm originated on the 11th near 13° N., 66° E., and was heading in a northeasterly direction. It intensified on the following day, when central near 17° N., 70° E., and on the morning of the 13th, now traveling east-northeast, passed into the Indian coast about 60 miles south of Bombay.

TYPHOONS AND DEPRESSIONS

TWO TYPHOONS IN THE FAR EAST IN NOVEMBER, 1927

By Rev. José Coronas, S. J.

[Weather Bureau, Manila, P. I.]

There were only two well-developed typhoons in the Far East during November. Both were formed and remained in the Pacific, only one of them having influenced the weather of the Philippines.

The first of these typhoons was probably formed on the 17th to 18th about 200 miles to the west of Guam. It moved westward until the early morning of the 21st, when it inclined northwestward about 200 miles to the east of San Bernardino Strait. In the early morning of the 22d it recurved to ENE. 120 miles to the east of northern Luzon.

The second typhoon was shown on our weather map of the 24th, 6 a. m., to the SSE. of Guam near 146° longitude E. between 6° and 7° latitude N. It moved WNW. and passed close to the south of Yap, where winds from the northeast quadrant, force 9 to 10, were observed. We do not know as yet the barometric minimum recorded in that station. The center must have passed at about 11 a. m. of the 25th. From the early morning of that day the typhoon was inclining gradually more and more to the north until in the afternoon of the 26th and on the 27th it moved practically northward. The United States Army transport *Thomas* was about 50 miles to the east of the center, the winds blowing with force 7 to 8 from the east quadrants, and the barometric minimum being 29.42 inches (747.27 millimeters), gravity correction not applied, at 4 p. m. of the 26th.

Lack of sufficient observations prevents us from giving as certain the track of this typhoon after the 27th, but it would seem probable that it was the same that appeared west of the Bonins on the 29th, and, therefore, it must have inclined to NNE. on the 28th and northeast on the 29th, when it passed 150 miles to the northwest of the Bonins.